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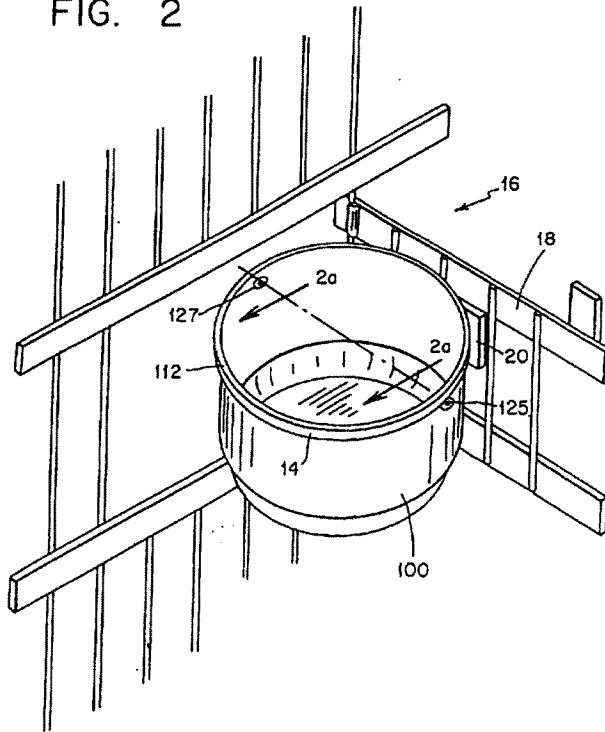
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(58) Field of Search
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(54) Abstract Title
Removable bird cage bowl with a locking mount

(57) A removable bird feeding bowl 100 has an upper lip 112 and a locking surface eg 125, 127 which is spaced below the upper lip. In a first embodiment, the locking surface includes two diametrically opposed detents 125, 127 spaced below the upper lip of the bowl. The bowl may be used with an existing supporting ring 14 by snapping the bowl into the ring. In a second embodiment, the locking surface includes a helical ridge (225, Fig.3) having the form of a screw thread. In a third embodiment, the ring is provided with a pair of diametrically opposed cut-outs (126, 128, Fig.4) which allow detents (125, 127) on the bowl to pass through the ring.

FIG. 2



This print takes account of replacement documents submitted after the date of filing to enable the application to comply with the formal requirements of the Patents Rules 1995

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FIG. 1
(PRIOR ART)

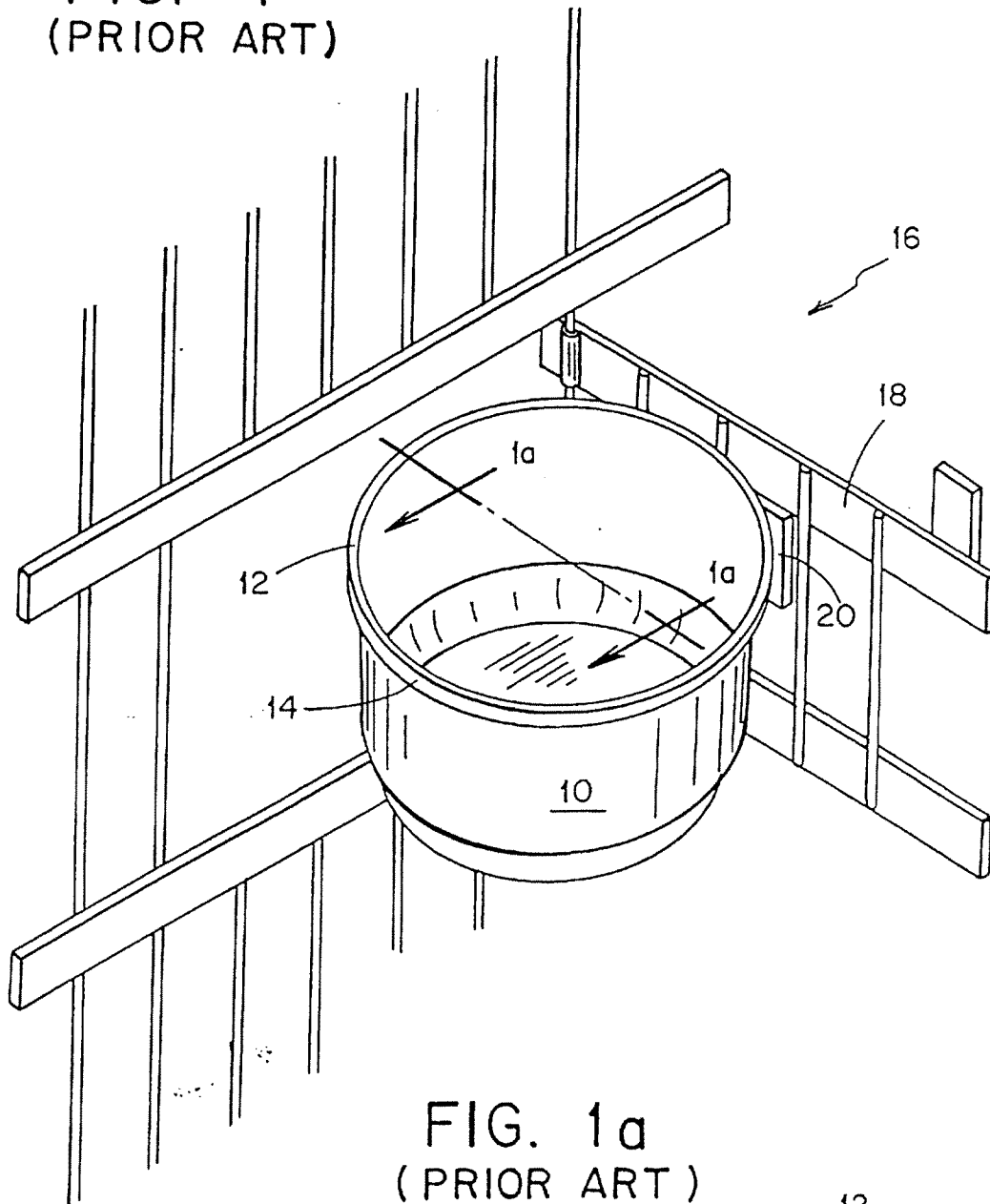


FIG. 1a
(PRIOR ART)

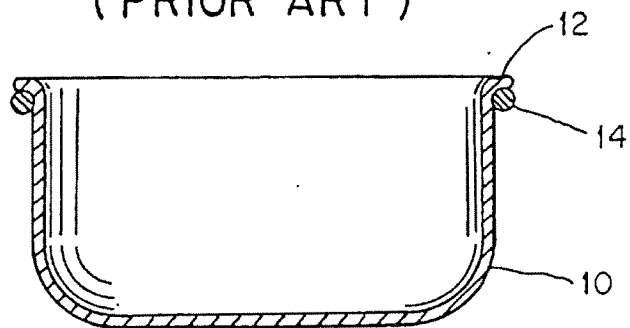


FIG. 2

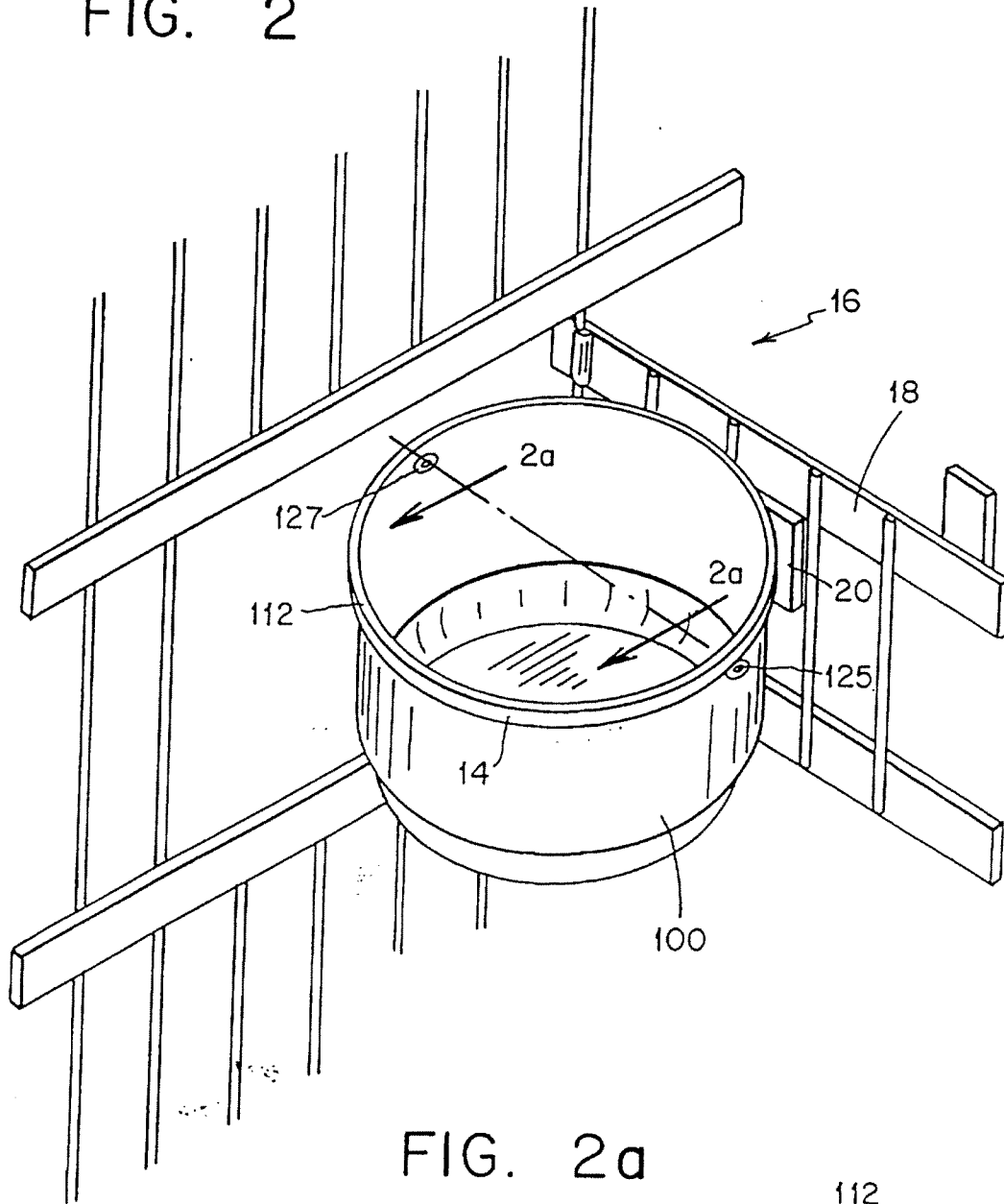


FIG. 2a

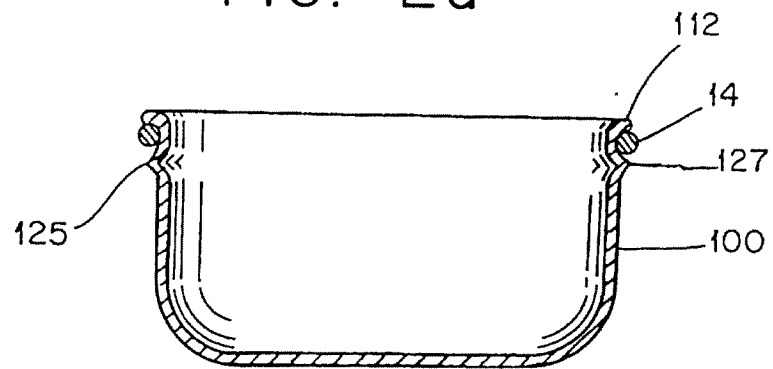


FIG. 4

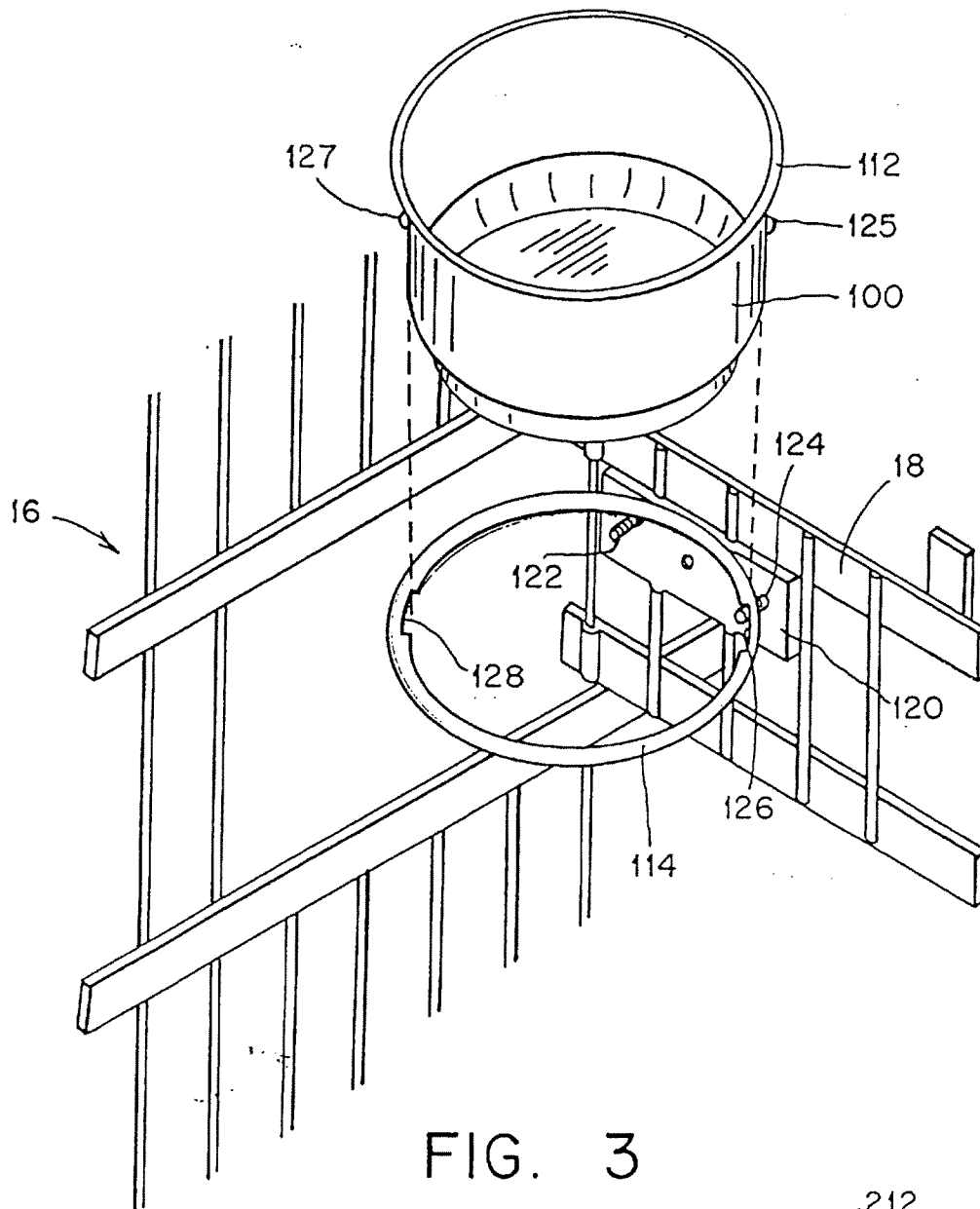
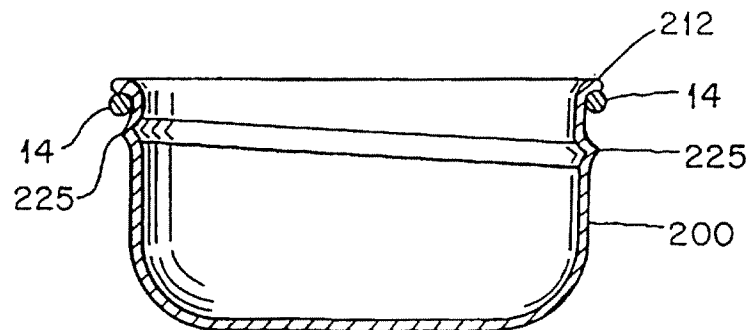


FIG. 3



Removable Bird Cage Bowl With A Locking Mount

Field of the Invention

The invention relates to a bird cage feeding bowl for containing food or
5 water. More particularly, the invention relates to a bird cage feeding bowl which is
removable from a bird cage and which may be lockingly mounted in a bird cage.

State of the Art

A known bird cage feeding bowl is shown in prior art Figures 1 and 1a. A
10 removable bowl 10 is provided with an upper lip 12. A circular ring 14 is mounted to a
convenient part of a bird cage 16, such as the hinged door 18, by means of a bracket
20. The diameter of the upper lip of the bowl 10 is larger than the diameter of the ring
14 so that when the bowl 10 is placed in the ring 14 as seen best in Figure 1a, the ring
14 supports the bowl 10 by its upper lip 12. This arrangement allows the bowl 10 to
15 be easily removed from the ring 14 and thus the cage 16 so that the bowl 10 may be
cleaned, refilled, etc.

Depending on the type of bird being housed in the cage 16, this prior art
feeding bowl arrangement may be adequate. However, some birds, particularly large
birds such as parrots or macaws, are able to lift the bowl 10 out of the ring 14. When
20 such a bird succeeds in lifting the bowl 10 out of the ring 14, the contents of the bowl
10 are usually spilled onto the floor of the cage 16 or onto objects outside the cage
16. This is a serious disadvantage of the prior art feeding bowl arrangement.

Summary of the Invention

25 It is therefore an object of the invention to provide a bird feeding bowl
which is removably installed in a bird cage but which cannot be lifted by a bird.

It is also an object of the invention to provide a removable bird feeding bowl which is easy to use and inexpensive to manufacture.

It is still another object of the invention to provide a removable bird feeding bowl and support ring assembly which is easy to install and remove, but which cannot
5 be disturbed by a bird.

In accordance with these objects which will be discussed in detail below, the removable bird feeding bowl of the present invention includes a bowl having an upper lip and a circumferential locking surface which is spaced below the upper lip.

According to a first embodiment of the invention, the locking surface
10 includes two diametrically opposed detents spaced below the upper lip of the bowl. The bowl may be used with an existing supporting ring, provided that the ring and/or the bowl has sufficient elasticity for the bowl to be snapped into the ring. The dimensions and location of the detents are chosen so that when the bowl is snapped into the ring, the ring fits snugly between the detents and the upper lip.

15 According to a second embodiment of the invention, the locking surface includes a helical ridge having the form of a screw thread. The bowl may be used with an existing supporting ring by placing the bottom of the bowl into the ring until the helical ridge engages the ring and then twisting the bowl so that the helical ridge makes a screw-like connection with the supporting ring. The upper lip of the bowl
20 stops the bowl from rotating through the ring.

According to a third embodiment of the invention, a removable bird feeding bowl and support ring assembly is provided. The bowl is substantially the same as the first embodiment and the ring is provided with a pair of diametrically opposed cut-outs which allow the detents on the bowl to pass through the ring. The
25 bowl is placed in the ring by aligning the detents with the cut-outs. When the upper lip of the bowl contacts the ring, the bowl is rotated so the detents are moved out of alignment with the cut-outs and thereby prevent the bowl from being lifted out of the

ring. This third embodiment is the presently preferred embodiment and can be made with stainless steel components. The presently preferred embodiment of the ring is provided with a tangential flange plate, which is connected by screws to a mounting plate for attaching the ring to a bird cage.

5 Additional objects and advantages of the invention will become apparent to those skilled in the art upon reference to the detailed description taken in conjunction with the provided Figures.

Brief Description of the Drawings

10 Figure 1 is a broken perspective view of a prior art bird feeding bowl assembly installed in a bird cage;

Figure 1a is a sectional view taken along line 1a-1a in Figure 1;

Figure 2 is a broken perspective view of a first embodiment of a bird feeding bowl according to the invention;

15 Figure 2a is a sectional view taken along line 2a-2a in Figure 2;

Figure 3 is a view similar to Figure 2a of a second embodiment of a bird feeding bowl according to the invention; and

Figure 4 is a broken perspective exploded view of a presently preferred embodiment of a bird feeding bowl assembly according to the invention.

20

Detailed Description of the Preferred Embodiments

Referring now to Figures 2 through 2a, a first embodiment of a removable bird feeding bowl 100 of the present invention has an upper lip 112 and two diametrically opposed detents 125, 127 spaced below the upper lip 112 of the bowl
25 100. The bowl may be used with an existing supporting ring 14, provided that the ring 14 and/or the bowl 100 has sufficient elasticity for the bowl to be snapped into the ring as shown in Figures 2 and 2a. The dimensions and location of the detents 125, 127

are chosen so that when the bowl is snapped into the ring 14, the ring 14 fits snugly between the detents 125, 127 and the upper lip 112 of the bowl 100. Moreover, the dimensions and the elasticity of the parts are chosen so that the bowl 100 may be easily removed from the supporting ring 14 by a human, but also provides sufficient
5 resistance to removal by a bird.

Turning now to Figure 3, a second embodiment of a removable feeding bowl 200 has an upper lip 212 and a helical ridge 225 having the form of a screw thread. The bowl 200 may be used with an existing supporting ring 14 by placing the bottom of the bowl 200 into the ring 14 until the helical ridge 225 engages the ring and
10 then twisting the bowl so that the helical ridge makes a screw-like connection with the supporting ring. The upper lip 212 of the bowl 20 stops the bowl from rotating through the ring.

Referring now to Figure 4, the first embodiment of the feeding bowl 100 may be advantageously used with a special supporting ring 114. The ring 114 is provided with a pair of diametrically opposed cut-outs 126, 128, which allow the
15 detents 125, 127 on the bowl 100 to pass through the ring 114. The bowl 100 is placed in the ring by aligning the detents 125, 127 with the cut-outs 126, 128 as shown in Figure 4. When the upper lip 112 of bowl 100 contacts the ring 114 (e.g. as shown in Figure 2a with respect to an existing ring 14), the bowl 100 is rotated so the detents
20 125, 127 are moved out of alignment with the cut-outs 126, 128 and thereby prevent the bowl 100 from being lifted out of the ring 114. This embodiment is the presently preferred embodiment and can be made with stainless steel components. The presently preferred embodiment of the ring 114 is provided with a tangential flange plate 120 which is connected by screws 122, 124 to a mounting plate (not shown) for
25 attaching the ring to a bird cage 16.

There have been described and illustrated herein several embodiments of a bird feeding bowl and a supporting ring for attaching the bowl to a bird cage. While

particular embodiments of the invention have been described, it is not intended that the invention be limited thereto, as it is intended that the invention be as broad in scope as the art will allow and that the specification be read likewise. Thus, while particular materials have been disclosed, it will be appreciated that other materials
5 could be utilised. Also, while different supporting rings have been shown, it will be recognised that other types of rings could be used as explained above. Moreover, while particular configurations have been disclosed in reference to the cut-outs and the detents, it will be appreciated that other configurations could be used as well. For example, more than two detents and corresponding cut-outs could be used. The
10 number of cut-outs could be greater than the number of detents. Furthermore, while the preferred supporting ring has been disclosed as having a particular type of mounting flange, it will be understood that different mounting arrangements can achieve the same or similar function as disclosed herein.

It will therefor be appreciated by those skilled in the art that yet other
15 modifications could be made to the provided invention without deviating from its spirit and scope as so claimed.

Claims:

1. A removable bird feeding bowl for use with a supporting ring into which said bowl may be placed and from which said bowl may be removed, said bowl comprising:
5 an upper supporting lip for engaging an upper surface of the supporting ring; and
at least one circumferential locking surface spaced below said lip for engaging a lower surface of the supporting ring.
2. A removable bird feeding bowl according to Claim 1, wherein:
10 said at least one circumferential locking surface includes at least one radially extending detent.
3. A removable bird feeding bowl according to Claim 2, wherein:
said at least one circumferential locking surface includes at least two diametrically opposed detents.
- 15 4. A removable bird feeding bowl according to Claim 1, wherein:
said at least one circumferential locking surface includes a helical ridge in the form of a screw thread.
5. A removable bird feeding bowl and supporting ring assembly comprising:
a bowl having an upper supporting lip and at least one radially extending
20 locking surface spaced below said lip; and
a supporting ring having means for mounting said ring to a bird cage and said ring having at least one radial cut-out dimensioned to receive said at least one radially extending locking surface.
6. An assembly according to Claim 5, wherein:
25 said at least one radially extending locking surface includes at least one detent.
7. An assembly according to Claim 6, wherein:

said at least one radially extending locking surface includes a pair of detents; and

at least one radial cut-out includes a pair of cut-outs.

8. An assembly according to Claim 7, wherein:

5 said pair of detents are diametrically opposed; and
at least pair of radial cut-outs are diametrically opposed.